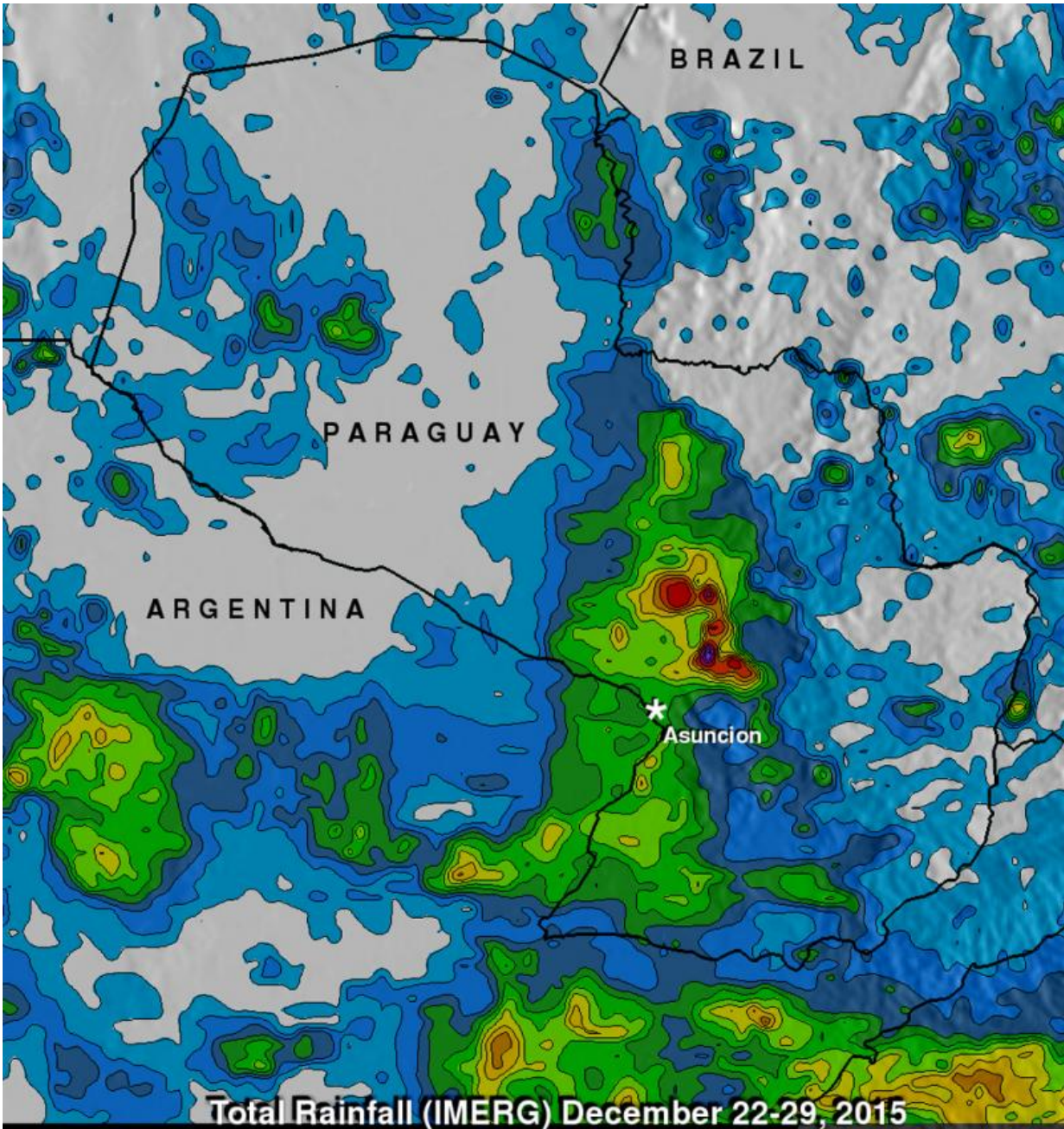


NASA analyzes Paraguay's heavy rainfall

December 30 2015, by Rob Gutro



IMERG showed the highest rainfall totals (depicted in red and purple) over the period of Dec. 23-29 occurred northeast of Asuncion, Paraguay. Credit: NASA/JAXA/SSAI, Hal Pierce

Widespread flooding has recently affected South America and Paraguay has been especially hard hit. A NASA analysis showed locations in central and southern Paraguay that received the largest rainfall totals from Dec. 23 to 29.

In Paraguay, the Department of Meteorology and Hydrology (DMH) and the Emergencies Office have attributed this late-summer flooding to this year's strong El Niño phenomenon.

"Particularly punishing are the heavy rains that have caused serious flooding across South America," said climatologist Bill Patzert, of NASA's Jet Propulsion Laboratory, Pasadena, California.

According to the Paraguay DMH, rainfall over central and south central parts of Paraguay showed rainfall totals up to 400 mm (15.75 inches) from the period of Dec. 1 through Dec. 23.

The NASA analysis of rainfall was generated using the Integrated Multi-satellitE Retrievals for GPM (IMERG) data product. IMERG rainfall estimates are computed in near-realtime. Global precipitation estimates are provided by IMERG through the use of data from satellites in the Global Precipitation Measurement (GPM) and is calibrated with measurements from the GPM Core Observatory as well as rain gauge networks around the world.

IMERG showed the highest rainfall totals over the period of Dec. 23 to 29 occurred northeast of Asuncion. IMERG showed the largest rainfall

totals in a thick line that runs somewhat from north to [south](#) with Asuncion in the center. Largest rainfall occurred from Concepcion in the central part of the country, southwest to Paso de la Patria in the southwestern corner of Paraguay.

Patzert said "Past, large Los Ninos have tended to increase the frequency and intensity of rains and often brought flooding to Paraguay, Argentina, Uruguay and Brazil."

More than 150,000 people across Argentina, Brazil, Paraguay and Uruguay are experiencing serious flooding and evacuations. Paraguay has been particularly hard hit, around 90,000 people in the area around the capital city of Asuncion have been evacuated.

Patzert also noted, "Epic rain and snow storms across the American Midwest have overloaded rivers and triggered fast-rising floods. While we in the U.S. await El Nino's major impacts, these events could be a preview of what to expect in the next few months."

Provided by NASA's Goddard Space Flight Center

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